

AD-A085 903

TECHNOMICS INC OAKTON VA

F/6 5/9

A SYSTEM APPROACH TO NAVY MEDICAL EDUCATION AND TRAINING. APPEN--ETC(U)

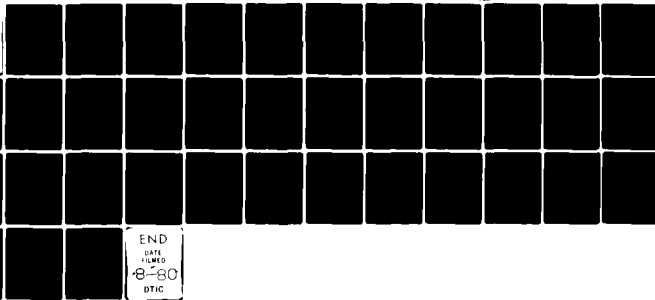
AUG 74

N00014-69-C-0246

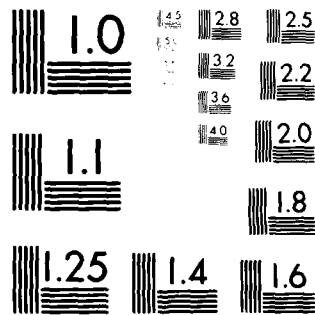
NL

UNCLASSIFIED

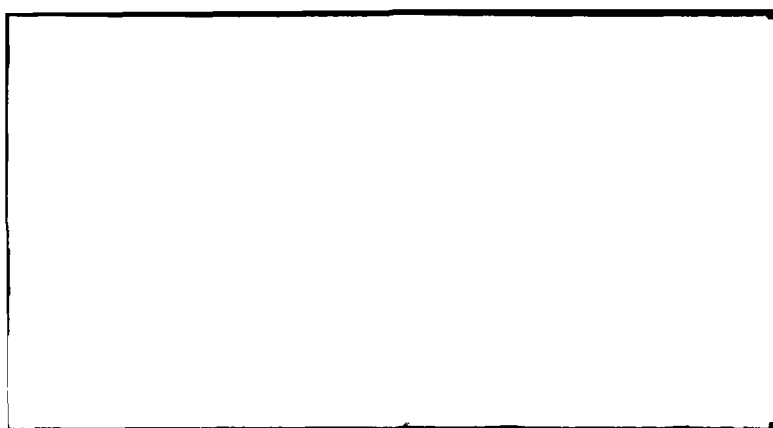
ALL
RIGHTS
RESERVED



END
DATE
FILMED
8-80
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A



12

1

APPENDIX 34.

COMPETENCY CURRICULUM FOR
ORTHOPEDIC ASSISTANT

APPLICATION OF A SYSTEM APPROACH
U.S. NAVY MEDICAL DEPARTMENT
EDUCATION AND TRAINING PROGRAMS
FINAL REPORT

AUGUST 31, 1974

DTIC
ELECTE
JUN 24 1980
S D C

Prepared under Contract to
OFFICE OF NAVAL RESEARCH
U.S. DEPARTMENT OF THE NAVY

Quida C. Upchurch, Capt., NC, USN
Program Manager
Education and Training R&D
Bureau of Medicine and Surgery (Code 71G)

This document has been approved
for publication and sale; its
distribution is unlimited.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER Final Report (Vols. I & II) Appendices: 1-45	2. GOVT ACCESSION NO. AD-A085903	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) A System Approach to Navy Medical Education and Training. Appendix 34. Competency Curriculum for Orthopedic Assistant.		5. TYPE OF REPORT & PERIOD COVERED FINAL REPORT
7. AUTHOR(s)		6. CONTRACT OR GRANT NUMBER(s) N00014-69-C-0246
9. PERFORMING ORGANIZATION NAME AND ADDRESS Office of Naval Research Technomics, Inc Department of the Navy Arlington, Virginia 22217 Oakton Va		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 43-03X.02
11. CONTROLLING OFFICE NAME AND ADDRESS Office of Naval Research Department of the Navy Arlington, Virginia 22217		12. REPORT DATE AUG 31 1974
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Office of Naval Research Department of the Navy Arlington, Virginia 22217		13. NUMBER OF PAGES
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20) (if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES None		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Education and Training Medical Technician Medical Training Job Analysis Nurse Training Task Analysis Dentist Training Curriculum Development		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The study objective consisted of a determination of what the health care personnel in the Navy's Medical Department, Bureau of Medicine and Surgery actually do in their occupations; improving the personnel process (education and training); and building a viable career pathway for all health care personnel. Clearly the first task was to develop a system of job analyses applicable to all system wide health care manpower tasks. A means of postulating simplified occupational clusters covering some 50		

DD FORM 1473

1 JAN 73

EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-014-6601UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

388930

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

currently designated Navy enlisted occupations, 20 Naval Enlisted Classification Codes (NEC's) were computerized. A set of 16 groupings that cover all designated occupations was developed so as to enhance the effectiveness of professionals and sub-professionals alike.

Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DDC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or special
A	

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

FOREWORD

The project, "Application of a System Approach to the Navy Medical Department Education and Training Programs," was initiated in May of 1969 as a realistic, comprehensive response to certain objectives set forth in ADO 43-03X, and to memoranda from both the Secretary of Defense and the Assistant Secretary of Defense, Manpower and Reserve Affairs. The Secretary's concern was stated in his memorandum of 29 June 1965, "Innovation in Defense Training and Education." More specific concerns were stated in the Assistant Secretary's memorandum of 14 June 1968, "Application of a System Approach in the Development and Management of Training Courses." In this he called for "vigorous and imaginative effort," and an approach "characterized by an organized training program with precise goals and defined operational interrelation among instructional system components." He also noted, "Job analyses with task descriptions expressed in behavioristic terms are basic and essential to the development of precise training goals and learning objectives."

The Project

System survey and analysis was conducted relative to all factors affecting education and training programs. Subsequently, a job-analysis sub-system was defined and developed incorporating a series of task inventories ". . . expressed in behavioristic terms . . ." These inventories enabled the gathering of job activity data from enlisted job incumbents, and data relating to task sharing and delegation from officers of the Medical, Nurse and Dental Corps. A data management sub-system was devised to process incumbent data, then carry out needed analyses. The development of initial competency curricula based upon job analysis was implemented to a level of methodology determination. These methods and curriculum materials constituted a third (instructional) sub-system.

Thus, as originally proposed, a system capability has been developed in fulfillment of expressed needs. The system, however, remains untested and unevaluated. ADO 43-03X called for feasibility test and cost-effectiveness determination. The project was designed to so comply. Test and evaluation through the process of implementation has not proved feasible in the Navy Medical Department within the duration of the project. As designed and developed the system does have ". . . precise goals and defined operational interrelation among instructional system components." The latter has been achieved in terms of a recommended career structure affording productive, rewarding manpower utilization which bridges manpower training and health care delivery functions.

Data Management Sub-System

Job analysis, involving the application of comprehensive task inventories to thousands of job incumbents, generates many millions of discrete bits of response data. They can be processed and manipulated only by high speed computer capability using rigorously designed specialty programs. In addition to numerical data base handling, there is the problem of rapidly and accurately manipulating a task statement data base exceeding ten thousand carefully phrased behavioral statements. Through the use of special programs, task inventories are prepared, printouts for special purposes are created following a job analysis application, access and retrieval of both data and tasks are efficiently and accurately carried out, and special data analyses conducted. The collective programs, techniques and procedures comprising this sub-system are referred to as the Navy Occupational Data Analysis Language (NODAL).

Job Analysis Sub-System

Some twenty task inventory booklets (and associated) response booklets) were the instruments used to obtain job incumbent response data for more than fifty occupations. An inventory booklet contains instructions, formatted questions concerning respondent information ("bio-data"), response dimension definitions, and a list of tasks which may vary in number from a few hundred to more than a thousand per occupational field.

By applying NODAL and its associated indexing techniques, it is possible to assemble modified or completely different inventories than those used in this research. Present inventories were applied about three years ago. While they have been rendered in operational format, they should not be reapplied until their task content is updated.

Response booklets were designed in OPSCAN mode for ease of recording and processing responses.

Overall job analysis objectives and a plan of administration were established prior to inventory preparation, including the setting of provisional sample target sizes. Since overall data attrition was forecast to approximate twenty percent, final sample and sub-sample sizes were adjusted accordingly. Stratified random sampling techniques were used. Variables selected (such as rating, NEC, environment) determined stratifications, together with sub-population sizes. About fifteen percent of large sub-populations were sought while a majority of all members of small sub-populations were sought.

Administration procedures were established with great care for every step of the data collecting process, and were coordinated with sampling and data analysis plans. Once set, the procedures were formalized as a protocol and followed rigorously.

Instructional Sub-System

Partial "competency curricula" have been composed as an integral sub-system bridging what is required as performance on the job with what is, accordingly, necessary instruction in the training process. Further, curriculum materials were developed to meet essential requirements for implementing the system so that the system could be tested and evaluated for cost effectiveness. However, due to the fact that test and evaluation was not feasible in the Navy Medical Department within the duration of the project, it was not possible to complete the development of the system through the test and evaluation phase. The inability to complete this phase also interrupted the planned process for fully developing the curricula; therefore, instead of completed curricula ready for use in the system, the curricula were partially developed to establish the necessary sub-system methodology. The competency curricula are based on tasks currently performed by job incumbents in 1971. (The currency of a given curriculum depends upon periodic analysis of incumbents' jobs, and its quality control resides in the evaluation of the performance competency of the program's graduates.)

A competency curriculum provides a planned course of instruction or training program made up of sequenced competency units which are, in turn, comprised of sequenced modules. These modules, emphasizing performance objectives, are the foundation of the curriculum.

A complete module would be comprised of seven parts: a cluster of related tasks; a performance objective; a list of knowledges and skills implied by the objective; a list of instructional strategies for presenting the knowledges and skills to the learner; an inventory of training aids for supporting the instructional strategies; a list of examination modes; and a statement of the required training time. In this project, curriculum materials have been developed to various levels of adequacy, and usually comprise only the first three parts; the latter four need to be prepared by the user.

The performance objective, which is the most crucial part of the module, is the basis for determining curriculum content. It is composed of five essential elements: the stimulus which initiates the behavior; the behavior; the conditions under which the behavior takes place; the criteria for evaluating the behavior; and the consequence or results of the behavior. A sixth element, namely next action, is not essential; however, it is intended to provide linkage for the next behavior.

Knowledges and skills listed in the module are those needed by the learner for meeting the requirements of the performance objective.

Instructional strategies, training aids, examination modes and training time have been specified only for the Basic Hospital Corps Curriculum. The strategies, aids and modes were selected on the basis of those considered to be most supportive in presenting the knowledges and skills so as to provide optimum learning effectiveness and training efficiency. The strategies extend from the classroom lecture as traditionally presented by a teacher to the more sophisticated mediated program for self-instruction. The training aids, like strategies, extend from the traditional references and handout material in the form of a student syllabus to mediated programs for self-instruction supported by anatomical models. Examination modes extend from the traditional paper and pencil tests to proficiency evaluation of program graduates on the job, commonly known as feedback. Feedback is essential for determining learning effectiveness and for quality control of a training program. The kind of instructional strategies, training aids and examination modes utilized for training are limited only by such factors as staff capability and training budget.

The training time specified in the Basic Hospital Corps Curriculum is estimated, based upon essential knowledge and skills and program sequence.

The competency curriculum module, when complete, provides all of the requirements for training a learner to perform the tasks set forth in the module. A module may be used independently or related modules may be re-sequenced into modified competency units to provide training for a specific job segment.

Since the curricula are based upon tasks performed by job incumbents in 1971, current analysis of jobs needs to be accomplished using task inventories that have been updated to reflect changes in performed tasks. Subsequent to job analysis, a revision of the curricula should be accomplished to reflect task changes. When the foregoing are accomplished, then faculty and other staff members may be indoctrinated to the competency curricula and to their relationship to the education and training system.

In addition to the primary use for the systematic training of job incumbents, these curricula may be used to plan for new training programs, develop new curricula, and revise existing curricula; develop or modify performance standards; develop or modify proficiency examinations; define billets; credentialize training programs; counsel on careers; select students; and identify and select faculty.

TABLE OF CONTENTS

COMPETENCY CURRICULUM FOR

ORTHOPEDIC ASSISTANT

<u>Units/Modules</u>	<u>Page</u>
I. <u>Plaster Techniques</u>	1
1. Assisting with Plaster Cast Application	2
2. Alterations and Removal of Plaster Cast	3
3. Upper Extremity Casts	4
4. Lower Extremity Casts	5
5. Plaster Jackets	6
6. Spica Casts	7
7. Cervical Collar Casts	8
8. Halo Cervical Casts	9
9. Immediate Post-Surgical Fitting (IPSF) Casts for Amputations	10
10. Plaster Splint Application	11
11. Fabrication of Special Plaster or Synthetic Splints	12
12. Non-Plaster Casts	13
13. Non-Plaster Splints	14
II. <u>Observation and Direction of Orthopedic Nursing</u>	15
1. Monitoring Patient with Neurologic Condition	16
2. I.V. Medication Administration	17
3. Turning Patient on Special Orthopedic Equipment	18
4. Drug/Alcohol Complications	19

<u>Units/Modules</u>	<u>Page</u>
III. <u>Traction</u>	20
1. Setting Up Traction Equipment	21
2. Routine Preventive Traction System Inspection and Maintenance	22
3. Skin Traction	23
4. Preparation of Patient for Insertion of Skeletal Traction Device	24
5. Skeletal Traction	25
6. Preparation of Patient for Removal of Skeletal Traction Device	26
7. Handling Patient in Traction	27
IV. <u>Evaluation of the Injured Patient in the Emergency Room or Orthopedic Clinic</u>	28
1. Initial Examination	29
V. <u>Surgery in the Emergency Room or Orthopedic Clinic</u> . .	30
1. Make Up Minor Surgical Packs/Trays	31
2. Tray Set-Up for Minor Surgery	32
3. Perform/Assist in Minor Out-Patient Surgery . . .	33
4. Minor Suturing	34
5. Hemostasis	35
6. Administer Local Anesthetic	36

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

COMPETENCY UNIT I: PLASTER TECHNIQUES

This unit includes the following modules:

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Assisting with Plaster Cast Application	2
2	Alterations and Removal of Plaster Cast	3
3	Upper Extremity Casts	4
4	Lower Extremity Casts	5
5	Plaster Jackets	6
6	Spica Casts	7
7	Cervical Collar Casts	8
8	Halo Cervical Casts	9
9	Immediate Post-Surgical Fitting (IPSF) Casts for Amputations	10
10	Plaster Splint Application	11
11	Fabrication of Special Plaster or Synthetic Splints	12
12	Non-Plaster Casts	13
13	Non-Plaster Splints	14

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 1: ASSISTING WITH PLASTER CAST APPLICATION

- TASKS
- a. Select and prepare materials for plaster cast
 - b. Transfer appropriate material and equipment to physician
 - c. Maintain extremity alignment
 - d. Clean equipment after use

PERFORMANCE OBJECTIVE

- (Stimulus) When presented with a patient with an order for a specific type of cast or modification of a cast
- (Behavior) The ORTHA will select and prepare cast materials, transfer appropriate equipment and materials to the physician, maintain extremity alignment during cast application or modification and clean the equipment following the procedure
- (Conditions) With supervision; using cast materials such as rolls of plaster, plaster splints, webril and felt; cast cutters, spreaders and benders, a variety of fracture tables such as the Albee-Compere, DV fracture table, Bell, Risser, Sherle-Bohler, and body jacket machine with accessories
- (Criteria) According to physician's orders and with a degree of accuracy that results in minimal expenditure of physician's time for these procedures
- (Consequence) This will result in expeditious treatment of patient and provide comfort, support and correction for a given condition
- (Next Action) Replace equipment in designated place after needed cleaning

KNOWLEDGES AND SKILLS

Types of fractures
Physiology of fracture healing
Principles of immobilization and fracture management
Mechanics
Reaction of plaster material with water
Reference manuals and supply catalogs
Observational skills
Manual dexterity
Attention to detail
Techniques for reassurance of patient
Safety precautions
Anatomy and function of musculoskeletal system

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 2: ALTERATIONS AND REMOVAL OF PLASTER CAST

TASKS a. Explain procedure to patient
 b. Bivalve/window/trim plaster cast
 c. Remove plaster cast

PERFORMANCE OBJECTIVE

(Stimulus) Upon physician's orders to bivalve, window, trim
 or remove a plaster cast
(Behavior) The ORTHA will explain the procedure to the patient
 and perform the specified functions
(Conditions) Without supervision; using electric cast cutters and/
 or hand cutters, cast spreaders and benders
(Criteria) Successful completion of the procedure without
 injury or discomfort to the patient and according
 to physician's specifications
(Consequence) This will result in greater comfort for patient,
 and facilitate local or general inspection and
 treatment of the extremity, subsequent casting
 procedures or progression to physical therapy
(Next Action) Record in patient's record

KNOWLEDGES AND SKILLS

Parts, use and function of electric cast cutters,
hand cutters, cast spreaders and benders
Basic plaster techniques to bivalve, trim, window
or remove plaster cast
Patient's diagnosis, e.g., level of injury, skin
condition
Prevention of window edema
General care of an extremity in a cast
Care and attention to detail

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 3: UPPER EXTREMITY CASTS

- TASKS
- a. Apply hanging arm cast
 - b. Apply long arm plaster cast
 - c. Apply short arm plaster cast
 - d. Apply gauntlet/navicular plaster cast
 - e. Apply hand plaster cast

PERFORMANCE OBJECTIVE

- | | |
|---------------|--|
| (Stimulus) | Upon physician's orders for an upper extremity cast |
| (Behavior) | The ORTHA will apply the specified cast, e.g., long arm, short arm, gauntlet/navicular or hand plaster cast |
| (Conditions) | Without supervision; using plaster, stockinet and felt |
| (Criteria) | Applied according to physician's specifications, in the proper reduced or anatomic position, so that the prescribed part is immobilized while remaining parts have freedom of movement with preservation of circulation and sensation to all areas |
| (Consequence) | This will result in comfort, support and promotion of healing, and it will minimize swelling and assist in the prevention of deformity |
| (Next Action) | Record treatment in patient's record |

KNOWLEDGES AND SKILLS

Basic plaster techniques for application of upper extremity casts
Anatomy and function of upper extremities
General knowledge of fractures and other conditions affecting upper extremities
Function and use of casting materials and equipment, e.g., plaster rolls, splints, webril, foam rubber, felt
Manual dexterity

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 4: LOWER EXTREMITY CASTS

TASKS	a. Apply long leg cylinder plaster cast b. Apply short leg plaster cast c. Apply long leg plaster cast d. Apply walking plaster cast e. Apply Sarmiento plaster cast f. Apply quadralateral plaster cast for fractured femur
-------	---

PERFORMANCE OBJECTIVE

(Stimulus)	Upon physician's orders for a lower extremity cast
(Behavior)	The ORTHA will apply the specified lower extremity cast, e.g., long leg cylinder, short and long leg walking and nonwalking casts, or special casts such as Sarmiento cast and quadralateral cast for fractured femur
(Conditions)	With selective supervision and technical assistance for casts requiring support of the extremity; using plaster, stockinet and felt
(Criteria)	Applied according to physician's specifications, in the properly reduced or anatomic position, so that the prescribed part is immobilized and remaining parts have freedom of motion with preservation of sensation and circulation to all areas
(Consequence)	This will result in comfort, support and promotion of healing of the injured part as well as minimizing swelling and assisting in preventing deformity
(Next Action)	Record treatment in log and patient's record

KNOWLEDGES AND SKILLS

Techniques for application of lower extremity plaster casts
Anatomy and function of lower extremities
General knowledge of fractures and other conditions affecting lower extremities
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 5: PLASTER JACKETS

- TASKS
- a. Apply Velpeau plaster jacket
 - b. Apply flexion plaster jacket
 - c. Apply extension (hyper) plaster jacket
 - d. Apply Minerva plaster jacket
 - e. Apply Calot plaster jacket
 - f. Apply Risser plaster jacket

PERFORMANCE OBJECTIVE

- (Stimulus) Upon physician's orders for a plaster jacket
(Behavior) The ORTHA will select and set up the appropriate equipment and apply or assist with the application of the specified plaster jacket
(Conditions) The ORTHA will set up the equipment without supervision and with minimal assistance, and apply the appropriate plaster jacket with or without supervision according to the attending physician's discretion
(Criteria) Patient placed upon cast application device with minimum adjustment to the device and with minimal delay
(Consequence) This will provide support, comfort and promotion of healing to injured part
(Next Action) Record in patient's chart; clean and replace equipment

KNOWLEDGES AND SKILLS

Function and use of various fracture tables and devices, e.g., DV fracture table, Bell fracture table, Risser table, Sherle-Bohler body jacket machine, Albee-Compere table
Techniques for application of plaster jackets
Anatomy and function of muscles and skeletal system
General knowledge of patient's injury and conditions involving the spine
Techniques for application of trunk casts

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 6: SPICA CASTS

TASKS a. Apply shoulder spica cast
 b. Apply hip spica plaster cast

PERFORMANCE OBJECTIVE

(Stimulus) Upon physician's orders for a spica cast
(Behavior) The ORTHA will apply a shoulder or hip spica cast
 as specified
(Conditions) With minimal supervision but with technical
 assistance for positioning and holding the
 affected extremity; using plaster materials and
 wooden struts, and fracture table and accessories
 in the case of the hip spica cast
(Criteria) A cast applied according to physician's
 specifications, so that the affected part is
 immobilized and remaining parts have freedom of
 motion with preservation of sensation and
 circulation to all areas; a cast that is structurally
 sound, maintains its integrity (prone, supine, side
 or ambulant) when the patient moves or is placed
 in various positions, and does not produce undue
 pressure on soft or bony parts
(Consequence) This will provide support, comfort and promotion
 of healing of injured part
(Next Action) Record procedure on patient's chart; clean and replace
 equipment

KNOWLEDGES AND SKILLS

Basic techniques for application of spica plaster
casts
Anatomy and function of the musculoskeletal system
General knowledge of injuries and conditions
involving extremities and spine
Use and function of related equipment, e.g., spica
body table, wooden struts

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 7: CERVICAL COLLAR CASTS

TASKS a. Apply cervical collar plaster cast

PERFORMANCE OBJECTIVE

(Stimulus)	Upon physician's orders
(Behavior)	The ORTHA will apply a plaster cervical collar cast
(Conditions)	Without supervision; using plaster rolls and splints, webril and felt
(Criteria)	A cast that is comfortable, immobilizes the neck and is verified by the physician to be according to specifications
(Consequence)	Immobilization, comfort and promotion of healing for conditions involving the cervical spine
(Next Action)	Record in patient's chart

KNOWLEDGES AND SKILLS

Basic techniques for application of cervical collar plaster casts
Anatomy and function of the cervical spine, head and mandible
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 8: HALO CERVICAL CASTS

- TASKS
- a. Prepare patient for insertion of halo pins
 - b. Apply cast for incorporation of halo apparatus

PERFORMANCE OBJECTIVE

- | | |
|---------------|--|
| (Stimulus) | Upon physician's orders |
| (Behavior) | The ORTHA will prepare the patient for pin insertion, make ready the necessary plaster equipment and apply the appropriate plaster jacket for incorporation of halo |
| (Conditions) | Without supervision |
| (Criteria) | A cast that is comfortable, immobilizes the neck and is verified by the physician to be according to specifications; applied following established aseptic technique for pin insertion and standard casting procedures |
| (Consequence) | Immobilization, comfort and promotion of healing for conditions involving the cervical spine |
| (Next Action) | Halo applied by physician; record in patient's chart |

KNOWLEDGES AND SKILLS

Anatomy and function of the cervical spine and skull
Basic technique for halo cast application
Aseptic technique
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 9: IMMEDIATE POST-SURGICAL FITTING (IPSF) CASTS FOR AMPUTATIONS

TASKS

- a. Apply IPSF cast for above-knee amputation
- b. Apply IPSF cast for below-knee amputation
- c. Apply IPSF cast for above-elbow amputation
- d. Apply IPSF cast for below-elbow amputation

PERFORMANCE OBJECTIVE

(Stimulus)	Upon physician's orders after amputation
(Behavior)	The ORTHA will apply the specified IPSF cast
(Conditions)	With supervision; using elastic plaster, stump sock standard plaster, felt attaching unit, pelvic band, cables, suspension straps
(Criteria)	A cast applied immediately or within 24-72 hours after surgery, that will function and will remain on stump and is verified by physician to be according to specifications
(Consequence)	Control edema, aid healing, speed ambulation
(Next Action)	Record in patient's chart

KNOWLEDGES AND SKILLS

- Anatomy of stumps
- Function of IPSF casts
- Knowledge of IPSF components
- Techniques for application of IPSF casts
- Aseptic technique
- Basic prosthetic principles

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 10: PLASTER SPLINT APPLICATION

TASKS

- a. Apply plaster arm splint
- b. Apply plaster leg splint
- c. Apply finger/hand splint
- d. Apply traction splints
- e. Place patient in T-splint clavicle traction

PERFORMANCE OBJECTIVE

(Stimulus) Upon physician's orders
(Behavior) The ORTHA will apply the specified splints, e.g., arm, leg, hand/finger, clavicle and traction splints
(Conditions) Using basic plaster materials, e.g., plaster rolls and splints, webril and felt, ace bandages, roller gauze or bias, cut and regular stockinet
(Criteria) A splint that immobilizes the specified part, preserves circulation and sensation of extremities, allows freedom of movement for uninvolved parts, and is verified by the physician to be according to specifications
(Consequence) Immobilization, comfort, promotion of healing and prevention of deformity of involved parts
(Next Action) Record in patient's chart

KNOWLEDGES AND SKILLS

Principles and techniques of splint application
General knowledge of conditions affecting the extremities
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 11: FABRICATION OF SPECIAL PLASTER OR SYNTHETIC SPLINTS

- TASKS
- a. Fabricate splints for prevention/correction of orthopedic surgery
 - b. Fabricate splints to stabilize parts, e.g., volar or dorsal arm splints

PERFORMANCE OBJECTIVE

- (Stimulus) Upon physician's orders
- (Behavior) The ORTHA will fabricate special plaster or synthetic splints for the anatomic, reduced or surgically corrected position specified by the physician
- (Conditions) Without supervision; using plaster splints, padding, orthoplast or other accepted materials
- (Criteria) A structurally sound splint that holds desired position, preserves circulation and sensation, does not restrain uninvolved areas and is verified by the physician to be according to specifications
- (Consequence) This action will result in comfort for patient, stabilizing of injured part, prevention or correction of pre-existing deformities and promotion of healing
- (Next Action) Record in patient's record

KNOWLEDGES AND SKILLS

- Principles and techniques of fabricating plaster and synthetic splints
- General knowledge of diseases and deformities of musculoskeletal system
- General knowledge of corrective surgical procedures for diseases and deformities of musculoskeletal system
- Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 12: NON-PLASTER CASTS

TASKS a. Apply light casts
 b. Apply orthoplast casts
 c. Apply jel-casts

PERFORMANCE OBJECTIVE

(Stimulus)	Upon physician's orders
(Behavior)	The ORTHA will apply a light cast, orthoplast cast or jel-cast to the specified extremity or trunk in the properly reduced or anatomic position
(Conditions)	Without supervision; using light cast, orthoplast or jel-cast and the proper casting devices or agents
(Criteria)	Cast is applied according to established standards and physician's specifications; affected part is immobilized while remaining parts are allowed freedom of motion with sensation and circulation preserved
(Consequence)	This action will facilitate healing, aid patient in daily functioning, provide comfort, immobilize the affected part and prevent deformity
(Next Action)	Verify that specialty cast is functioning adequately

KNOWLEDGES AND SKILLS

Principles and techniques of non-plaster cast application
Purpose of device to be applied
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit I: Plaster Techniques

MODULE 13: NON-PLASTER SPLINTS

TASKS: a. Apply plastic and metal conforming splints
 b. Apply leather and cloth gauntlets and slings

PERFORMANCE OBJECTIVE

(Stimulus)	Upon physician's orders
(Behavior)	The ORTHA will apply the specified plastic and metal splints, or leather and cloth gauntlets and slings
(Conditions)	Using universal pre-ordered commercial splints, cast tools, bunsen burner, straps
(Criteria)	Splint, gauntlet and/or sling applied according to established standards and physician's specifications; affected part is immobilized and remaining parts are allowed freedom of motion with sensation and circulation preserved
(Consequence)	This action will facilitate healing, aid patient in daily functioning, provide comfort, immobilize affected part and prevent deformity
(Next Action)	Verify that specialty splints/slings/gauntlets are functioning adequately

KNOWLEDGES AND SKILLS

Principles and techniques of non-plaster splint application
Principles and techniques of gauntlet and sling application
Purpose of device to be applied
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

COMPETENCY UNIT II: OBSERVATION AND DIRECTION OF ORTHOPEDIC
NURSING

This unit includes the following modules:

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Monitoring Patient with Neurologic Condition . .	16
2	I.V. Medication Administration	17
3	Turning Patient on Special Orthopedic Equipment	18
4	Drug/Alcohol Complications	19

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit II: Observation and Direction of Orthopedic Nursing

MODULE 1: MONITORING PATIENT WITH NEUROLOGIC CONDITION

- TASKS
- a. Observe/report patient's level of consciousness
 - b. Observe patient's physical movement, e.g., muscular coordination, posture, balance
 - c. Perform neurologic checks, e.g., pupils, vital signs, patient response

PERFORMANCE OBJECTIVE

- (Stimulus) Having a patient with head trauma
(Behavior) The ORTHA will observe and record patient's level of consciousness, vital signs, pupil size and reaction, posture and muscular coordination
(Conditions) Without supervision
(Criteria) According to physician's orders, with confirmation of patient status by supervisory personnel
(Consequence) This will result in the detection of changes in the neurologic status of the patient
(Next Action) Notify physician; record on patient's record

KNOWLEDGES AND SKILLS

Patient's history and diagnosis
Significance of pupillary reflexes
Manifestations of head trauma
Function and use of a light source, e.g., flashlight, otoscope

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit II: Observation and Direction of Orthopedic Nursing

MODULE 2: I.V. MEDICATION ADMINISTRATION

- TASKS
- a. Start I.V. therapy via needle/scalp vein/butterfly
 - b. Start I.V. therapy via medicut (angiocath, jelco)
 - c. Start I.V. therapy via intracath
 - d. Administer I.V. medication via soluset, piggy back, or I.V. bottle

PERFORMANCE OBJECTIVE

- (Stimulus) Upon physician's orders
(Behavior) The ORTHA will start I.V. therapy via the specified procedure, e.g., scalp vein, butterfly, angiocath, intracaths and jelco needles, and administer prescribed medication via soluset or piggyback method
(Conditions) With selective supervision; using necessary equipment such as tourniquet, alcohol sponges, tape, antibiotic, topical ointment, syringes and administration sets
(Criteria) I.V. is comfortable and does not infiltrate; rate of infusion is properly regulated
(Consequence) Restoration or maintenance of normal distribution or composition of body fluids
(Next Action) Record in patient's record

KNOWLEDGES AND SKILLS

Types of needles and I.V. administration sets
Types and effects of various I.V. solutions and medications
Related surface and venous anatomy
Skill in inserting needles into veins
Technique to properly stabilize needle and immobilize extremity
Recognition of adverse reaction to medication, infiltrations of solutions, etc.
Techniques and principles for initiating I.V. therapy, e.g., scalp vein, butterfly, angiocath, intracath, jelco
Administration of I.V. medication by piggyback and soluset methods
Ability to calculate dosage rate

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit II: Observation and Direction of Orthopedic Nursing

MODULE 3: TURNING PATIENT ON SPECIAL ORTHOPEDIC EQUIPMENT

TASKS a. Turn patient on circo-electric bed
 b. Turn patient on Stryker frame

PERFORMANCE OBJECTIVE

(Stimulus) Upon physician's orders
(Behavior) The ORTHA will turn patient on circo-electric bed
 or Stryker frame
(Conditions) With indirect supervision and assistance; using
 appropriate equipment for circo-electric bed or
 Stryker frame
(Criteria) Preservation of circulation and sensation to all
 areas, absence of decubitis and contractures
 secondary to neglect, according to physician's
 specifications, and maintaining the comfort of
 the patient
(Consequence) This will result in comfort, support and promotion
 of healing to injured part, allow access to all
 areas of body for nursing care and rehabilitation,
 and reduce motion of injured part during
 transportation
(Next Action) Record in patient's record

KNOWLEDGES AND SKILLS

Parts, operation and maintenance of circo-electric
 bed and Stryker frame
General knowledge of patient's history and injuries
Anatomy and physiology of musculoskeletal system
Knowledge of and strict adherence to safety
 precautions; e.g., electrical patient safety
Care and attention to detail
Procedures and techniques for turning immobile
 patient on circo-electric bed or Stryker frame
Types of patients involved, e.g., paraplegics,
 quadraplegics, fractures
General knowledge of fractures
Principles and techniques of traction
Body mechanics
Manual dexterity

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit II: Observance and Direction of Orthopedic Nursing

MODULE 4: DRUG/ALCOHOL COMPLICATIONS

- TASKS
- a. Observe for/report symptoms of drug abuse,
e.g., LSD, amphetamines
 - b. Observe for/report symptoms of delirium tremens

PERFORMANCE OBJECTIVE

- | | |
|---------------|---|
| (Stimulus) | When presented with an orthopedic trauma patient |
| (Behavior) | The ORTHA will observe for symptoms of drug abuse and alcoholism |
| (Conditions) | Without supervision |
| (Criteria) | Confirmation of findings by medical and/or nursing supervisors |
| (Consequence) | Identification of symptoms of drug abuse or alcoholism |
| (Next Action) | Provide appropriate medical treatment; record in patient's record |

KNOWLEDGES AND SKILLS

- Manifestations/side effects of commonly abused drugs
- Manifestations of alcoholic withdrawal
- Physical signs and stigmata associated with drug abuse and alcoholism
- Ability to distinguish between effects of trauma and possible side effects of drugs or alcohol

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit III: Traction

MODULE 1: SETTING UP TRACTION EQUIPMENT

TASKS a. Set up traction equipment, e.g., pulleys, weights, bows, cords, Thomas splint and attachments, slings

PERFORMANCE OBJECTIVE

(Stimulus)	When requested by the physician
(Behavior)	The ORTHA will select and apply traction equipment to the overbed frame of a bed, e.g., pulleys, lines, weights, bows, slings and Thomas splint with attachments
(Conditions)	Without supervision; using extension arms, lateral and angled arms
(Criteria)	All traction lines and pulleys move freely, weights hang unobstructed and away from patient and system is balanced; all pressure areas are observed and protected
(Consequence)	This action will result in the setting up of a traction system to support elevation, maintain patient comfort, and allow freedom of movement of body part in traction as well as of remaining parts of body
(Next Action)	Follow up to insure continued function of traction system; record application of traction in patient's record

KNOWLEDGES AND SKILLS

Function and set up of overbed frames
Simple physics and mechanics, e.g., vectors, principles of counter traction
Anatomy and function of musculoskeletal system
Patient diagnosis and body part involved
Techniques for setting up traction equipment, e.g., pulleys, weights, bows, cords, Thomas splint and attachments
Mechanical ability

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit III: Traction

MODULE 2: ROUTINE PREVENTIVE TRACTION SYSTEM INSPECTION AND
MAINTENANCE

- TASKS
- a. Inspect traction system, pulley and ropes
 - b. Replace faulty traction equipment
 - c. Check general alignment of traction for proper patient positioning

PERFORMANCE OBJECTIVE

- (Stimulus) When a patient is in traction
(Behavior) The ORTHA will make daily inspections of the traction system, replacing faulty equipment, if any, and reporting any change in the patient's position or traction alignment
(Conditions) Without supervision, but with technical assistance in supporting involved part while replacements are being made; using basic traction equipment, e.g., pulleys, lines, bows, spreader bars, weights, slings
(Criteria) Trouble free, comfortable traction that maintains desired alignment of part being treated and allows freedom of motion to remaining parts of body
(Consequence) Comfortable patient and prevention of complications and unexpected mishaps with traction
(Next Action) Repair faulty equipment

KNOWLEDGES AND SKILLS

Function, care and maintenance of traction devices and components
Simple physics and mechanics
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit III: Traction

MODULE 3: SKIN TRACTION

- TASKS
- a. Place patient in Dunlop's arm traction
 - b. Place patient in Bryant's traction
 - c. Place patient in Buck's traction
 - d. Place patient in Russell traction
 - e. Place stump in skin traction
 - f. Place patient in pelvic traction
 - g. Place patient in cervical halter traction

PERFORMANCE OBJECTIVE

- (Stimulus) Upon physician's orders
- (Behavior) The ORTHA will place the patient in specified variety of skin traction, e.g., Dunlop's arm traction, Bryant's traction, Buck's traction, Russell traction, skin traction for the stump of an amputee
- (Conditions) With selective supervision; using basic traction equipment (pulleys, lines, weights), skin adhesive, mole skin, ace wraps, sponge rubber, "ready or fast" traction sets, foot plates
- (Criteria) Traction that is balanced and comfortable, maintains desired alignment of part being treated and allows freedom of motion to remaining parts of body, preserves sensation and circulation in involved part and is applied according to physician's specifications and established procedures
- (Consequence) Healing of injured part with minimal discomfort and deformity
- (Next Action) Record in patient's chart

KNOWLEDGES AND SKILLS

Function and techniques for use of skin traction devices and components
Anatomy and function of extremities
Patient's diagnosis
Simple physics including vector forces and countertraction principles

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit III: Traction

MODULE 4: PREPARATION OF PATIENT FOR INSERTION OF SKELETAL
TRACTION DEVICE

- TASKS
- a. Establish sterile field for traction device insertion
 - b. Surgically prepare patient for traction device insertion

PERFORMANCE OBJECTIVE

- (Stimulus) Upon physician's orders for skeletal traction
(Behavior) The ORTHA will prepare a sterile field and surgically prep the patient for insertion of the traction device
(Conditions) With indirect supervision; using appropriate equipment, e.g., Steinmann pins, drills, tongs
(Criteria) Maintaining aseptic technique and sterile conditions
(Consequence) Aseptic insertion of device to minimize possible infection during use of skeletal traction
(Next Action) Apply traction

KNOWLEDGES AND SKILLS

Aseptic technique
Maintenance of sterile field
Procedures to surgically prepare patient for traction device insertion
Function and use of skeletal traction devices and components
Anatomy and function of musculoskeletal system
Predesignated probable pin sites
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit III: Traction

MODULE 5: SKELETAL TRACTION

TASKS a. Place patient in skeletal traction
 b. Place patient in balanced suspension traction

PERFORMANCE OBJECTIVE

(Stimulus) Upon physician's orders for skeletal traction
(Behavior) The ORTHA will place the patient in skeletal traction, which may or may not be balanced suspension, or in skull traction
(Conditions) With supervision and with the assistance of the physician; using basic traction equipment (pulleys, weights, lines, traction bows), bed with overbed frame for use of Thomas splint, a circo-electric bed, Stryker frame, Foster home or double mattress bed for skull traction, Steinmann pins, Crutchfield, Vinke, or Barton's tongs, Thomas splints, slings, etc.
(Criteria) Skeletal or skull traction that maintains desired alignment with reasonable comfort; skeletal traction that permits motion in involved part and remaining portion of body; skull traction that allows for limited motion of body and for turning patient
(Consequence) Healing of injured part with minimal discomfort and deformity
(Next Action) Record in patient's chart

KNOWLEDGES AND SKILLS

Function and use of skeletal traction devices and components
Anatomy and function of muscular/skeletal system
Simple physics
Patient's diagnosis

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit III: Traction

MODULE 6: PREPARATION OF PATIENT FOR REMOVAL OF SKELETAL
TRACTION DEVICE

TASKS a. Discontinue skeletal traction
 b. Surgically prepare patient for traction device
 removal

PERFORMANCE OBJECTIVE

(Stimulus) Upon physician's orders for discontinuation of
 skeletal traction
(Behavior) The ORTHA will remove the traction, assemble equipment
 for device removal and post-traction support, e.g.,
 fracture table, casting, splinting or brace material,
 and surgically prepare the patient for traction
 device removal and further definitive treatment
(Conditions) With indirect supervision
(Consequence) Nontraumatic discontinuation of skeletal traction,
 a more comfortable patient and a smooth sequence
 of treatment
(Next Action) Apply post-traction supportive device, e.g., cast,
 splint, brace

KNOWLEDGES AND SKILLS

Anatomy and function of musculoskeletal system
Aseptic technique
Surgical preps
Patient's diagnosis
Casting, splinting and bracing procedures and
techniques

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit III: Traction

MODULE 7: HANDLING PATIENT IN TRACTION

- TASKS
- a. Take patient in or out of traction
 - b. Determine need and initiate realignment of traction

PERFORMANCE OBJECTIVE

- (Stimulus) Upon physician's orders to apply, remove or adjust traction
- (Behavior) The ORTHA will apply, remove or realign the specified traction
- (Conditions) Without supervision, but with technical assistance to support an involved part; using basic traction equipment
- (Criteria) Absence of pressure sores and contractures secondary to neglect, observance of a comfortable patient, traction that is properly applied and aligned according to physician's specifications
- (Consequence) Healing of injured part with minimal discomfort and deformity; increased efficiency of nursing care
- (Next Action) Record in patient's record

KNOWLEDGES AND SKILLS

Basic traction techniques and function
Anatomy and function of musculoskeletal system
Patient's diagnosis
Care and maintenance of traction devices
General knowledge of fractures and fracture alignment

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

COMPETENCY UNIT IV: EVALUATION OF THE INJURED PATIENT IN THE
EMERGENCY ROOM OR ORTHOPEDIC CLINIC

This unit includes the following module:

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Initial Examination	29

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit IV: Evaluation of Injured Patient

MODULE 1: INITIAL EXAMINATION

- TASKS
- a. Perform preliminary verbal examination of patient, e.g., type of injury, nature of symptoms
 - b. Observe/examine patient for symptoms of orthopedic injury

PERFORMANCE OBJECTIVE

- (Stimulus) Having a patient in the emergency room or orthopedic clinic with suspected orthopedic injuries
- (Behavior) The ORTHA will perform a preliminary examination by questioning patient as to the type of injury and nature of symptoms while observing the patient for obvious clinical symptoms, e.g., joint swelling, deformity
- (Conditions) With indirect supervision
- (Criteria) Performed in a nontraumatic fashion so that the patient's communicable and obvious clinical symptoms are noted and recorded
- (Consequence) Efficient and effective patient flow
- (Next Action) Initiation of standard diagnostic procedures with physician's consultation for special procedures

KNOWLEDGES AND SKILLS

Anatomy and physiology of skeletal system, muscles and ligaments

Anatomy and abnormalities of joints

Recognition of clinical symptoms of orthopedic injuries

Management of trauma

Patient communication techniques

Utilization of hospital services, e.g., x-ray, lab

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

COMPETENCY UNIT V: SURGERY IN THE EMERGENCY ROOM OR ORTHOPEDIC CLINIC

This unit includes the following modules:

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Make Up Minor Surgical Packs/Trays	31
2	Tray Set-Up for Minor Surgery	32
3	Perform/Assist in Minor Out-Patient Surgery . .	33
4	Minor Suturing	34
5	Hemostasis	35
6	Administer Local Anesthetic	36

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit V: Surgery

MODULE 1: MAKE UP MINOR SURGICAL PACKS/TRAYS

TASKS a. Select/set up instruments for small packs
 b. Determine/select agents/processes for
 equipment/instrument sterilization

PERFORMANCE OBJECTIVE

(Stimulus) Upon receipt of an order for a small surgical pack
 or tray
(Behavior) The ORTHA will package, prepare, sterilize and make
 up trays for use in orthopedic clinic or emergency
 room
(Conditions) Without technical assistance; using labels, wraps,
 linens, instrument containers, instruments and
 autoclave, plastic dressing tray, incision and
 drainage tray, Steinmann pin tray, skin biopsy/
 muscle biopsy trays, sterile tray and burn pack
(Criteria) All required instruments, drapes, needles, sponges,
 syringes are placed in tray; pressure sensitive
 tape is used; and tray is correctly sealed and/or
 wrapped and labeled
(Consequence) Sterilized trays available for use in orthopedic
 clinic or emergency room
(Next Action) Store prepared trays

KNOWLEDGES AND SKILLS

Types and classification of instruments, e.g.,
 plastic dressing tray, Steinmann pin, skin biopsy
 tray, muscle biopsy tray, burn pack, Craig pin
 extractor tray
Sterilization procedures
Operation of autoclave
Accuracy in interpreting autoclave tape
Ability to perceive color

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit V: Surgery

MODULE 3: PERFORM/ASSIST IN MINOR OUT-PATIENT SURGERY

TASKS a. Perform/assist in minor surgical procedures

PERFORMANCE OBJECTIVE

(Stimulus)	When instructed
(Behavior)	The ORTHA will perform specified minor surgical procedures
(Conditions)	With assistance and supervision of a surgeon; using local tray, minor surgery tray, labels, Formylin and containers
(Criteria)	According to established standards and procedures, without need of extra instruments, and so that biopsy specimen is properly fixed in solution, properly labeled, and sent to the lab without unneeded delay
(Consequence)	A rapid and well-planned surgery
(Next Action)	Record in patient's chart

KNOWLEDGES AND SKILLS

Basic instruments/equipment/drapes required for minor surgical procedures
Preparation and labeling of biopsy specimens
Aseptic technique
Maintenance of sterile field
Principles and techniques for performing various minor orthopedic surgical procedures

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit V: Surgery

MODULE 4: MINOR SUTURING

TASKS a. Perform primary closure of wound, e.g., debride,
 suture
 b. Suture subcutaneous tissue
 c. Suture skin

PERFORMANCE OBJECTIVE

(Stimulus) When assisting the physician in the orthopedic
 clinic or emergency room
(Behavior) The ORTHA will perform primary closure of wounds;
 suture subcutaneous tissue and/or skin
(Conditions) With direct supervision by the physician; using
 needed instruments and suture material
(Criteria) A wound that is properly prepared, i.e., surgically
 prepared, debrided, irrigated, and without tension
 along the wound margins
(Consequence) This will result in a neatly closed wound and
 minimize chances of infection
(Next Action) Place dressing on wound

KNOWLEDGES AND SKILLS

Related anatomy
Basic surgical techniques for wound closure, e.g.,
 suturing, surgical prep, wound debridement,
 wound irrigation
Use of surgical instruments and suture material
Principles of wound healing
Operating room technique
Recognition of similar and dissimilar tissue
 planes/levels
Precision in the use of surgical instruments

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit V: Surgery

MODULE 5: HEMOSTASIS

TASKS a. Clamp blood vessels
 b. Tie sutures/ligatures for hemostasis

PERFORMANCE OBJECTIVE

(Stimulus) When assisting a physician or when presented with a patient with bleeding wound
(Behavior) The ORTHA will clamp blood vessels and tie sutures to maintain hemostasis
(Conditions) With direct supervision; using indicated instruments and suture materials
(Criteria) Cessation of bleeding; procedure performed according to physician's orders
(Consequence) Dry surgical or traumatic wound
(Next Action) Continue to assist physician with operative procedure

KNOWLEDGES AND SKILLS

Related anatomy
Use of related surgical instruments and suture material
Related surgical techniques
Management of trauma

Competency: ORTHOPEDIC ASSISTANT (ORTHA)

Unit V: Surgery

MODULE 6: ADMINISTER LOCAL ANESTHETIC

TASKS a. Administer digital block anesthetic
 b. Administer local anesthetic

PERFORMANCE OBJECTIVE

(Stimulus) When presented with a patient needing minor surgery
 on a digit or in a well-localized area
(Behavior) The ORTHA will administer a digital block or
 local anesthetic
(Conditions) Without supervision; using needed equipment such
 as needles, syringe, local anesthetic agent
(Criteria) An area or digit sufficiently anesthetized to
 perform minor surgery, debridement, wound irrigation
 and primary closure; performed under sterile
 conditions
(Consequence) This will permit minor surgery without discomfort
 to patient
(Next Action) Record in patient's chart and perform or assist with
 minor surgery

KNOWLEDGES AND SKILLS

Related anatomy
Principles and techniques of local anesthetic
administration
Basic pharmacology of local anesthetic agents,
specifically avoiding agents with epinephrine for
digital blocks
Sterile technique
Principles of minor surgery
Manifestation and treatment of drug reactions